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AESO/FA
22410-2006-FA-0015

April 28, 2006

Ms. Kim Beneli
White Tanks Concerned Citizens Group
P.O. Box 87
Waddell, Arizona 85355

Ms. Cindy Lester
Chief, Regulatory Branch
U.S. Army Corps of Engineers
3636 North Central Avenue, Suite 900
Phoenix, Arizona 85012-1936

Dear Ms. Beneli and Ms Lester:

Thank you providing a copy of the Environmental Assessment, 404(b)(1) Evaluation, and Public Interest Review, July 2005, (EA) for the proposed Festival Ranch master-planned community in Buckeye, Maricopa County, Arizona (Sections 3, 10, 15, 22, 27, 28, 33, and 34, T5N, R4E). We received this document on February 14, 2006, under transmittal letter from White Tanks Concerned Citizens, Inc. dated February 13, 2006. These comments are provided under authority of, and in accordance with, the Fish and Wildlife Coordination Act (48 Stat. 401, as amended U.S.C. 661 et. seq.) (FWCA), the National Environmental Policy Act (40 CFR Part 1503) (NEPA), and Section 404(m) of the Clean Water Act (CWA).

The EA is generally well written and coherent, although redundant in some places, would benefit greatly from the inclusion of an index. More importantly though, the EA does not adequately address the issues we raised in our November 13, 2003, letter on Public Notice 2000-00966RWF (PN) in regard to impact analysis and mitigation. We therefore object to the issuance of this permit and recommend it be held in abeyance until such time that these issues are appropriately addressed. We are primarily concerned with a scope of analysis which inappropriately excludes project activities occurring above the ordinary high water mark, the lack of an empirical impact assessment, and the lack of a mitigation and monitoring plan that addresses the totality of project-related impacts.

The EA does not contain an expanded scope of analysis beyond jurisdictional waters as suggested in our prior comments on the Festival Ranch PN. The Army Corps Engineers (Corps) recently expanded its scope of analysis in the EA for the Lone Mountain Project. We believe Festival Ranch and Lone Mountain are functionally similar and the same rationale for expanding the scope on Lone Mountain applies to Festival Ranch. All comments that we have provided on

Festival Ranch and Lone Mountain, as well as many other projects applying for a 404 permit, are available on are public webpage at <http://www.fws.gov/arizonaes/> under the Document Library. We refer you to those comments for the biological and regulatory rationale for applying an expanded scope of impact analysis.

The EA also does not adequately quantify project impacts. We believe that proper evaluation of the effects to biological function and the development of appropriate mitigation will require a quantitative impact analysis that employs standardized empirical methodologies. The EA does provide some level of quantification in the form of landscape acres and vegetation density. It also discusses the use of vegetation volume. However, we are concerned that these measures alone are not sufficient to evaluate the biological function of jurisdictional waters and the surrounding landscape. Urban development will undoubtedly result in a fundamental shift in the biotic community. Standard methods of conservation biology should be employed to capture and evaluate these changes. These should include both vegetative and wildlife measures such as volume, canopy cover, biomass, density, abundance, diversity, richness, and evenness.

Proposed mitigation appears deficient because it has not been expanded to address the entire project. It does not appear that the proposed mitigation will adequately protect the biological functions provided by jurisdictional waters and interrelated uplands. Additionally, it is difficult to draw definitive conclusions about the effectiveness of mitigation because no empirical methods are used to quantify function. Planting vegetation at similar densities on a small fraction of the landscape does not ensure that biological function will be protected or replaced. Other measures are needed to guide the development of the mitigation plan and to serve as a baseline for compliance monitoring. Monitoring provisions and criteria should be developed to ensure the success of mitigation for both wildlife and vegetation communities.

The following are specific comments on the EA.

Proposed Project

We are concerned that effects to the biological function of jurisdictional waters on the project site have not been properly assessed. The EA states, on page 2, that “[t]he entire jurisdictional area of the Hassayampa River, including the floodplain and floodway, will be avoided by the permit action and project activities.” This most likely means that no discharge of dredged and/or fill material will occur in these areas. This however, does not address the issue of secondary effects. The 404 (b)(1) Guidelines define secondary effects at 40 CFR Part 230.11, as effects “that are associated with a discharge of dredged and fill materials, but do not result from the actual placement of dredged or fill material.” In this case, we believe that significant secondary effects to jurisdictional waters, such as the Hassayampa River, could occur from the construction and existence of the master-planned community.

Specific Activity that requires a Department of the Army permit

The EA states, on page 3, that a total of 26.8 acres of waters will experience impacts from pad fill for residential and commercial development, and other community amenities. We recommend that the Corps clarify that it is permitting the entire development plan. Corps

regulations (CFR 33, Appendix B to Part 325) states that the District Engineer is considered to have authority over portions of the project beyond the limits of jurisdiction “where the environmental consequences of the larger project are essentially products of the Corps permit action.” If it is impracticable to completely avoid impacts to jurisdictional waters through bridge spans or upland buffers, we believe the proposed development could not occur “but for” the issuance of a Section 404 permit and it would be within Corps authority to extend the scope of analysis beyond the limits of the ordinary high water mark and assess interrelated and interdependent actions.

Purpose and Need

We are concerned the project purpose and need is too narrowly defined, severely limiting the scope of alternatives that can be considered. The EA states, page 4, “[t]he overall project purpose...is to develop a minimum of a 3,000-acre master planned community in the western Phoenix metropolitan area.” We suggest the purpose of the proposed action is simply to provide housing and the need is to meet market demand.

Scope of Analysis under NEPA

Page 5 of the EA states that the Corps has no responsibility to analyze the impact of project amenities in uplands because under the no action alternative the applicant would develop all of the 10,105 acres of Festival Ranch, except jurisdictional washes. This, however, seems contrary to Corps regulations involving the least environmental damaging practicable alternative. The 404(b)(1) Guidelines (40 CFR Part 230.10) state that “no discharge of dredged or fill material shall be permitted if there is a practicable alternative to the proposed discharge which would have less adverse impact on the aquatic ecosystem.” If we assume that projects to be permitted by the Corps are in compliance with 404(b)(1), then we assume that the Corps and applicant have analyzed alternatives that would result in no discharge of dredged or fill material for the purpose of constructing the overall project and have mutually determined that those alternatives are not economically, technically, or logistically capable of being done. If it is practicable for Festival Ranch to be constructed without the discharge of dredged and fill material, then it must be accomplished in this fashion. If, however, it is impracticable and the discharge of dredged and fill is critical to the construction of the overall project, then the Corps must extend of the scope of impact analysis over the entire proposed development.

Alternatives

The EA discussion in pages 8-10, is not clear. The EA states that bridge spanning is practicable therefore the scope can be limited. The EA then states that bridge spanning is not practicable or least damaging and was eliminated from consideration. The reader cannot determine whether the project can be built without the discharge of dredged or fill material. If it can, then the 404 (b)(1) Guidelines require that it must. If it cannot, then expand the scope of impact analysis.

Anticipated changes to the biological characteristics of the aquatic environment

The EA states, on page 19, that the Hassayampa River “does not provide habitat for fish other organisms dependent on perennial water.” This is an accurate statement for those ephemeral portions of the Hassayampa River that flow through the project area. However, upstream of the project area the Hassayampa River maintains perennial flow that provides habitat for a variety of native fish and avifauna. We are concerned about potential effects on the Hassayampa River from proposed groundwater pumping associated with Festival Ranch.

On pages 20-21, the EA discusses mitigation that is proposed to offset the impacts of the Festival Ranch project. The EA discusses compensation for habitat functions, placement of restrictive covenants, establishment of vegetated buffers, and application of success criteria for vegetative volume. Unfortunately, the mitigation only addresses impacts to 26.8 acres of waters that would be directly subject to a discharge. As we have stated previously, we believe the total impact of the authorized activity on the biological function of all waters within and adjacent to the entire project footprint should be analyzed in an empirical fashion. This should include secondary and cumulative effects, and impacts to surrounding areas as described in the 404(b)(1) Guidelines (40 CFR Part 230).

The EA does not provide empirical data that suggests biological function of jurisdictional waters and the surrounding landscape would be preserved. We do not believe acreage can serve as a surrogate for functions, particularly when the mitigation plan only addresses a tiny fraction of the overall project footprint. Empirical standards and success criteria should address both vegetative and wildlife parameters to demonstrate the effectiveness of the mitigation plan.

In our previous comments on 404-permit applications, we provided biological examples illustrating the intimate biological relationship that exists between uplands and jurisdictional waters. For instance, Gila woodpeckers use saguaros located in adjacent uplands for nesting while foraging extensively along washes (Szaro and Jakle 1985), desert mule deer use uplands and xeroriparian washes (Krausman *et al.* 1985), and herpetofaunal species are rapidly lost from riparian areas as these areas become isolated from uplands (Jones *et al.* 1985). Uplands and jurisdictional waters are biologically linked to each other, and uplands directly influence the biological integrity of desert washes. Impacts to uplands and jurisdictional washes should not be treated separately but assessed together through an ecosystem based approach.

General Environmental Concerns

The EA states, on page 27, “Most of the potential direct environmental impacts to waters of the U.S. have been minimized by avoiding the majority of high-functioning washes, and dedicating open space drainage corridors that provide buffers between developed upland areas and the xeroriparian habitat supported by the washes. The compensatory mitigation that has been proposed would compensate for project impacts within the Corps’ scope of analysis.” The EA does not appear to support these conclusions. As previously stated, the EA contains no quantitative assessment, other than acreage, to document the functional capacity of jurisdictional washes.

Please consider adding data, references, or additional discussion to support the conclusion that a network of small habitat islands and buffers would preserve the biological function of jurisdictional washes and the surrounding landscape. In general, principles of landscape ecology support the idea that landscape islands less than 250 acres in size are not large enough to protect ecosystem integrity and function (Barnes and Adams 1999).

Existing and potential water supplies; water conservation

The EA states, page 27, that the primary potable water source will be groundwater. Again, we are concerned with the potential effect of groundwater withdrawal on perennial reaches of the Hassayampa River, portions of which are utilized by the endangered southwestern willow flycatcher (*Empidonax traillii extimus*), and is part of the Hassayampa-Agua Fria Management Unit of the Gila Recovery Unit for the recovery of the flycatcher (USFWS 2002). Delisting of the flycatcher is predicated on the attainment of recovery goals for each management unit within a recovery unit. A recovery goal of 25 territories has been established for the Hassayampa-Agua Fria Management Unit.

This section of the EA, on page 28, also discusses the role of the Central Arizona Groundwater Replenishment District in assuring that Festival Ranch is able to pump groundwater. The District relies on the availability of Central Arizona Project (CAP) water for replenishment purposes. In our April 22, 2004, comments on the Draft Environmental Impact Statement on the Allocation of Water Supply and Long-Term Contract Execution, Central Arizona Project, Arizona, June, 2000 (available at <http://www.fws.gov/arizonaes/>), we stated our position in accordance with the FWCA that the impact of CAP water use on the environmental landscape of Arizona should be thoroughly assessed and mitigated by the Bureau of Reclamation (BR). We believe this issue is closely tied to the Corps' responsibility under Section 404 of the CWA because a substantial amount of municipal and industrial development is made possible by the use of CAP water. The Corps should consider contacting BR to discuss programmatic impact assessment and mitigation of municipal and industrial development in the CAP service area.

Summary of Indirect and cumulative effects from the proposed permit action

On page 39, the EA makes the argument that cumulative effects are not significant. The EA cites the conclusions of the 2002 Programmatic Environmental Assessment of the Impacts of the Section 404 Nationwide Permit (NWP) Program on Cactus Ferruginous Pygmy-owl in Arizona. We believe these conclusions are erroneous because the assessment of cumulative impacts for each project authorized under the Individual Permit program and the NWP program have all been based on a limited scope of impact analysis including only those areas below the ordinary high water mark that are directly subject to a discharge.

Additionally, we believe the NWP program permits activities that have more than minimal individual and cumulative adverse effects on the environment. These concerns have been previously relayed to the Corps in comments dated August 27, 1998, and May 11, 2000, in response to Public Notice 98-50449-BAH regarding replacement NWPs; comments dated May 24, 2000, to assist the Corps in preparing a consultation initiation package for effects of the NWP program on the cactus ferruginous pygmy-owl; comments dated April 23, 2001, in response to

the Corps' request for concurrence that establishment of regional conditions and assertion of discretionary authority for the NWP program would not likely adversely affect threatened and endangered species or their critical habitats; comments dated July 11, 2001, on Special Public Notice requesting comments on the supplemental environmental assessments prepared for 11 nationwide permits and three regional conditions; and comments dated September 20, 2001, regarding Special Public Notice for NWP re-issuance.

Again, as discussed in those letters, we believe the NWP program does not ensure minimal adverse effects on the environment due to a scope of impact analysis narrowly and inappropriately confined to areas below the jurisdictional ordinary high water mark. This is primarily the same issue we raised in our previous comments on Festival Ranch and recently in comments on the Expanded Environmental Assessment for Lone Mountain. In regard to NWPs we have suggested an interagency effort to cooperatively craft regional conditions and standard local operating procedures that appropriately address the issues of scope of analysis and minimal effects. Such an effort has not been initiated.

The EA again makes the argument, page 40, that cumulative impacts to wildlife habitat would be insignificant and fully mitigated. Without application of a thorough scope of analysis and the use empirical assessment techniques, this conclusion cannot be validated.

Mitigation proposed by applicant

On page 44, the EA states that the applicant has prepared a Compensatory Mitigation and Monitoring Plan. As previously stated in our comments on the PN for Festival Ranch, we believe mitigation should be based on a quantitative impact assessment and utilize empirical techniques and standards. We again request the opportunity to review the mitigation plan in accordance with the 404(q) Memorandum of Agreement Between the Department of the Interior and the Department of the Army which provides for cooperation in acquiring and conveying project information needed by either agency to fulfill its permit review responsibilities.

On page 45, the EA discusses mitigation in general. It appears that 9.5 acres of washes would be restored, 10 acres would be created, and 54.7 acres of buffer would be preserved. Again we recommend additional discussion, data, and references to support the conclusion that a network of small habitat islands and buffers would preserve the biological function of jurisdictional washes and the surrounding landscape that would be affected by the entire Festival Ranch development plan. A quantitative analysis would assist in determining the minimal patch size or buffer width necessary to maintain the current wildlife community in terms of diversity, abundance, and other applicable biological measures.

The EA states, on page 47, "Upland and riparian buffers are important in mitigating the effects of adjacent developed land uses on aquatic systems and the Corps considers their establishment and maintenance as a measure to mitigate for the functions and values of (waters of the United States) that would be lost as a result of the proposed project." This is entirely consistent with our assertion that an intimate biological relationship exists between upland areas and waters, and that project amenities in upland areas will necessarily affect the biological function of waters. As previously stated, the loss of upland vegetation communities could adversely affect wildlife

community population dynamics through habitat loss or fragmentation. This type of disturbance can disrupt intra- and interspecific wildlife interactions, resulting in population and community shifts (Knight *et al.* 1995). For instance, in forested North America, urbanized habitats typically support larger (measured by biomass) and richer (more species) but less even in relative abundance avian communities because they are dominated by a few, abundant species (Marzluff 1997). Additionally, native bird densities, species richness, and overall diversity is strongly correlated with vegetation volume of native plants (Mills *et al.* 1989). We believe that recognizing the functional relationship of uplands and waters for mitigation purposes should also apply for impact analysis.

Page 48 of the EA indicates that 1,047.6 acres of the Hassayampa River floodway would be protected by restrictive covenant. Page 49 further indicates that all avoided waters within the project would be protected by restrictive covenant. Again, we do not believe acreage should be used as a surrogate for biological function and/or structure. An empirical assessment of the impacts and mitigation plan would be more meaningful and useful.

Consideration of Comments

The EA states, page 65, that “ephemeral washes within the proposed project have low value from a wildlife standpoint” and “most of the washes are being preserved and mitigation is being required for those that are not.” We recommend this claim be supported by site specific quantitative assessments based on empirical methodologies.

Page 66 of the EA indicates that groundwater pumping would not affect the Hassayampa River because two separate aquifers exist. We suggest that a monitoring program be developed and implemented to ensure the perpetual protection of water supply in perennial reaches of the Hassayampa River.

The EA states, page 70, “the property has limited value as wildlife habitat due to the lack of ground cover and tree canopy, and the openness of the landscape, which provides little cover or forage for birds or larger mammalian wildlife.” Conclusions regarding the relative biological function of xeroriparian areas and uplands on the project site would be more meaningful if based on site-specific empirical data rather than qualitative descriptions, which may be based on subjective criteria that are prone to multiple interpretations. A quantitative assessment is in the Corps’ best interest because it would allow all stakeholders to discuss and evaluate impacts from a standardized and objective perspective. If sufficient empirical data were gathered, there would likely be more consensus between our agencies regarding environmental impacts.

Page 75 of the EA states that the EA has addressed the issues raised in our November 13, 2003, comment letter regarding effects and scoping. We continue to believe that these issues have not been adequately addressed by the EA or any other document that we have received.

The EA discusses, pages 78-80, the type of ecological community shifts that could result from the proposed development. The EA acknowledges that species intolerant of humans would be eliminated while those that are tolerant would remain. These are precisely the types of effects that we believe should be quantified so we may engage in a standardized cooperative effort to

preserve the biological integrity of jurisdictional washes and surrounding landscape. Quantifying these changes is not an impossible task and such an effort would allow us to address and mitigate the effects of urban sprawl on wildlife communities. We do not believe the current mitigation discussed in the EA demonstrates preservation of biological function.

On page 89, the EA seems to state that Festival Ranch is distinguishable from the Lone Mountain Project because of the “functional independence” of Federal and private portions of the development. We find this argument perplexing because it seems to imply that scattered building pads, roadway segments, and partial utility lines have independent utility separate from the entire master-planned community. We do not believe this is the case.

On page 89, the EA also argues that Festival Ranch is different from Lone Mountain because waters do not pass through the site at same level as they do in Lone Mountain. Regardless of the number, configuration, and structure of waters, the same functional relationship between uplands and waters still exists. We do not believe Festival Ranch is functionally different and we believe an empirical analysis on both projects would bear this out.

In closing, we believe that adequate demonstration of the preservation of the biological integrity of jurisdictional waters and the surrounding landscape will require impact analysis and mitigation and monitoring based on standardized empirical methods. We are available to assist in the development and implementation of such an approach. If we can be of further assistance, please contact Mike Martinez (x224). Correspondence from our office cited in this letter is available on our webpage <http://www.fws.gov/arizonaes/>.

Sincerely,

/s/ Steven L. Spangle
Field Supervisor

cc: Chief, Regulatory Branch, U.S. Army Corps of Engineers, Phoenix, AZ
Regional Administrator, Environmental Protection Agency, San Francisco, CA
Supervisor, Project Evaluation, Arizona Game and Fish Department, Phoenix, AZ

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